

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	Title Sheet
1A	Index of Sheets

Keeping Oregon on the Move



BEGINNING OF PROJECT
X-STP-0535(024)

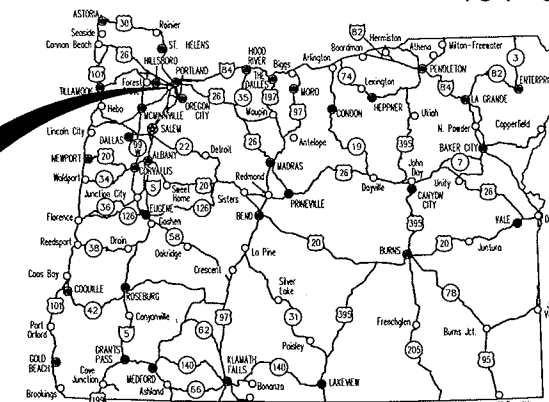
STA. 44+50

STATE OF OREGON
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED PROJECT
PAVING & SIGNALS

**HALL BLVD: HART RD-RIDGECREST DR OVERLAY
(BEAVERTON)**

WASHINGTON COUNTY
NOVEMBER 2009

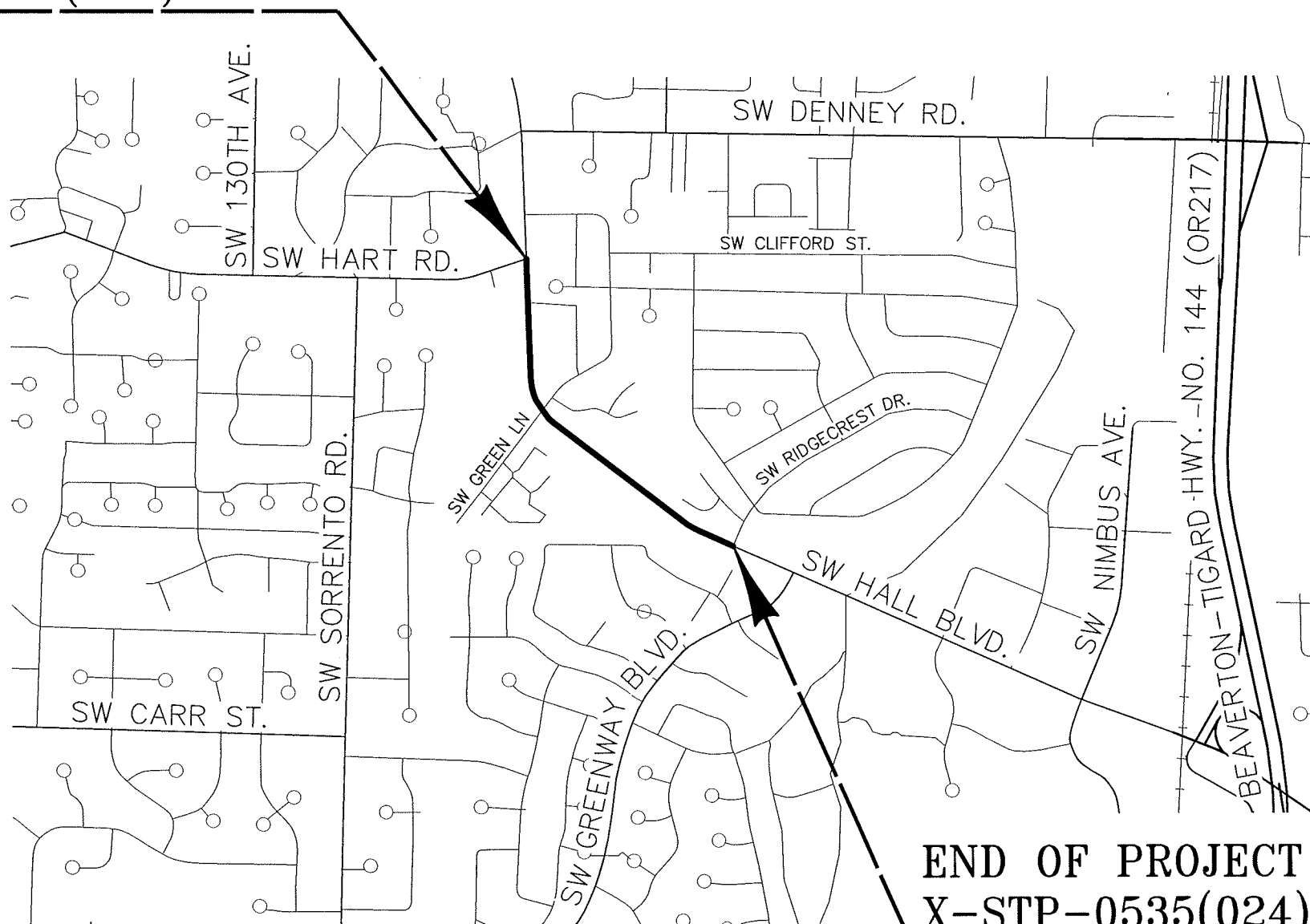
Project Location



Overall Length Of Project - 0.43 Miles

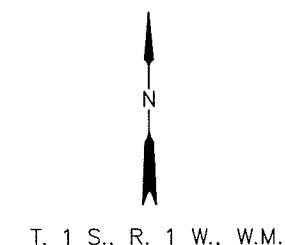
ATTENTION:

Oregon Law Requires You To Follow Rules Adopted By The Oregon Utility Notification Center. Those Rules Are Set Forth In OAR 952-001-0010 Through OAR 952-001-0090. You May Obtain Copies Of The Rules By Calling The Center. (Note: The Telephone Number For The Oregon Utility Center Is (503) 232-1987.)



END OF PROJECT
X-STP-0535(024)

STA. 67+20



City Of Beaverton

OREGON TRANSPORTATION COMMISSION

Gail Achterman CHAIR
Mike Nelson VICE-CHAIR
Janice Wilson COMMISSIONER
Alan Brown COMMISSIONER
David Lohman COMMISSIONER
Matthew L. Garrett DIRECTOR OF TRANSPORTATION

**PLANS PREPARED FOR
CITY OF BEAVERTON**



DAVID EVANS AND ASSOCIATES, INC.
2100 Southwest River Parkway
Portland Oregon 97201 Ph: 503.223.6663

These plans were developed using AASHTO design standards. Exceptions to these standards, if any, have been submitted and approved by the ODOT Chief Engineer or their delegated authority.

Approving Authority: Walter Bartel
Signature & date 9-22-09

Walter Bartel
Print name and title Proj. Mgr.

Concurrence by ODOT Chief Engineer

**HALL BLVD: HART RD-RIDGECREST DR OVERLAY
(BEAVERTON)**

WASHINGTON COUNTY

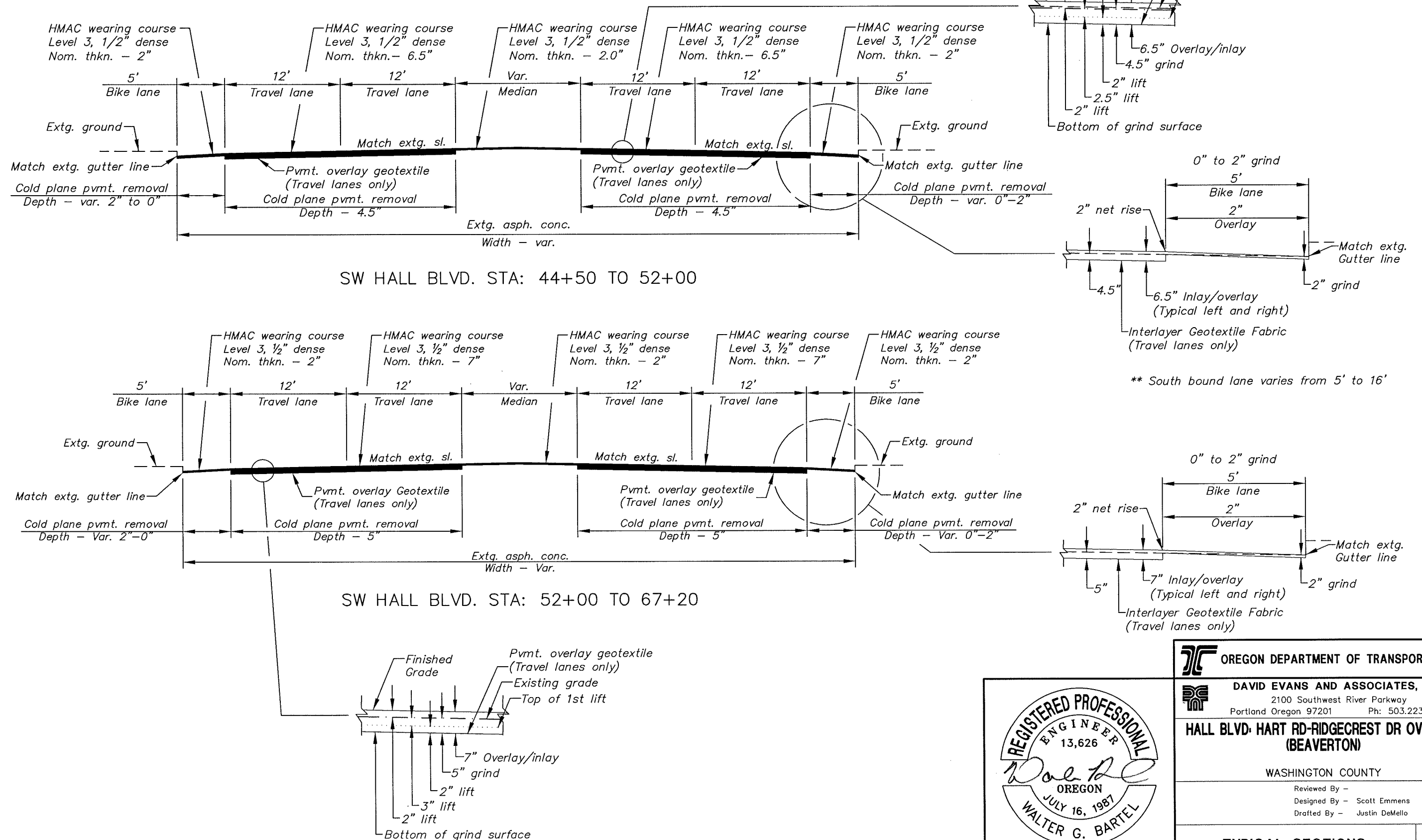
FEDERAL HIGHWAY ADMINISTRATION	PROJECT NUMBER	SHEET NO.
OREGON DIVISION	X-STP-0535(024)	1

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
	ROADWAY
2	Typical Sections
2B thru 2B-4	Details
3 thru 6	General Construction
	TRAFFIC
SG	Signal Legend
SG-2	Signal Plan
SG-3	Detection Plan
ST thru ST-5	Striping Plans

2008 ENGLISH OREGON STANDARD DRAWINGS

Standard Drg. Nos.	
TM800, TM821, TM841, TM843	- Traffic Control Plans
RD1015	- Inlet Protection (Type 4)

HALL BLVD- HART RD-RIDGECREST DR OVERLAY (BEAVERTON) WASHINGTON COUNTY		
FEDERAL HIGHWAY ADMINISTRATION	PROJECT NUMBER	SHEET NO. 1A
OREGON DIVISION	X-STP-0535(024)	



OREGON DEPARTMENT OF TRANSPORTATION

DAVID EVANS AND ASSOCIATES, INC.
2100 Southwest River Parkway
Portland Oregon 97201 Ph: 503.223.6663

HALL BLVD. HART RD-RIDGECREST DR OVERLAY (BEAVERTON)

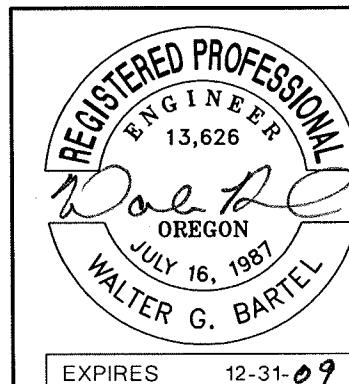
WASHINGTON COUNTY

Reviewed By -
Designed By - Scott Emmens
Drafted By - Justin DeMello

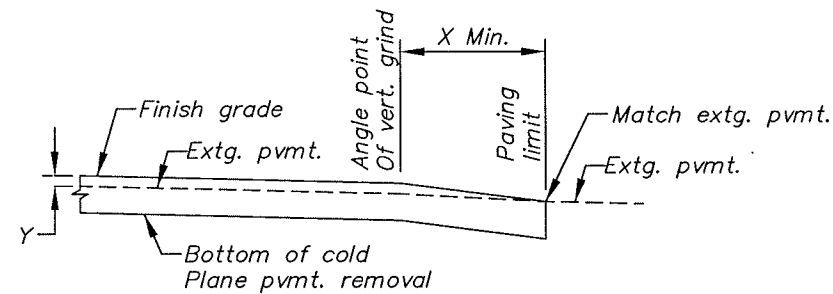
TYPICAL SECTIONS

SHEET NO.

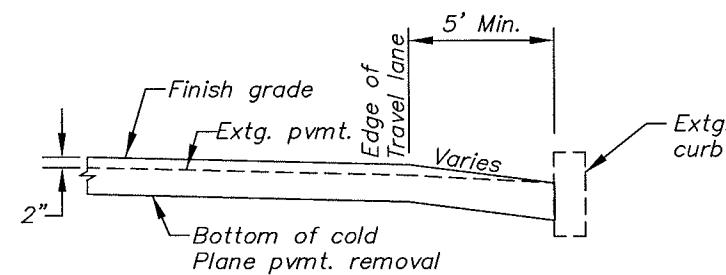
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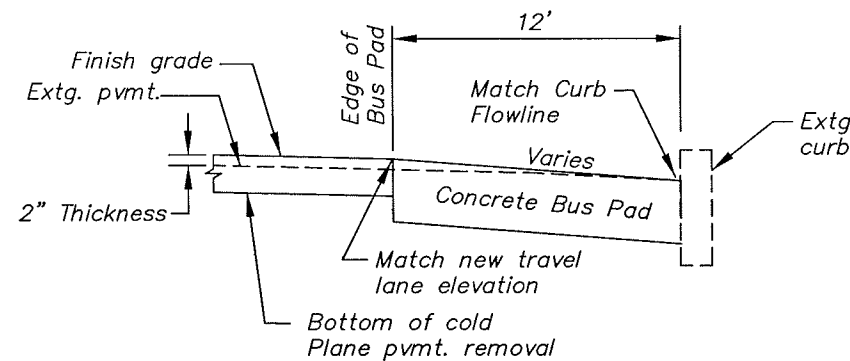
TAPER INTO EXTG. ROADS			
INTERSECTION OF	X	Y	SLOPE
Sta. 44+50 To 44+80	30'	2"	0.56%
Hall and Hart	30'	2"	0.56%
Hall and 125th	15'	2"	1.11%
Hall and Cresmoor	15'	2"	1.11%
Hall and Green Ln.	15'	2"	1.11%
Sta. 66+90 To Sta. 67+20	30'	2"	0.56%



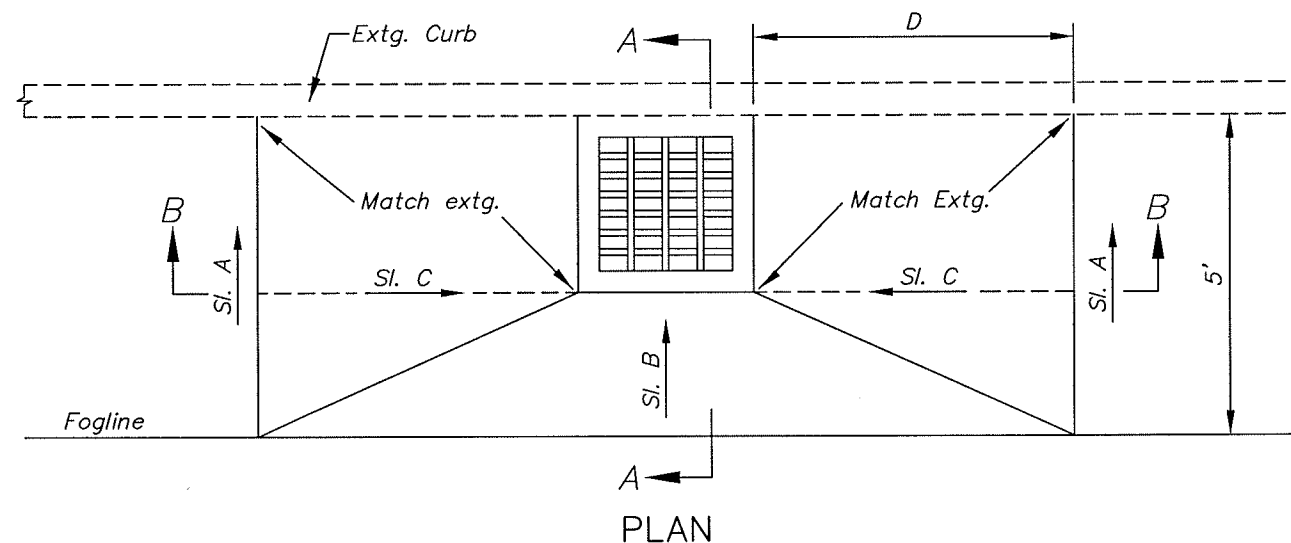
PAVEMENT MATCHING DETAIL



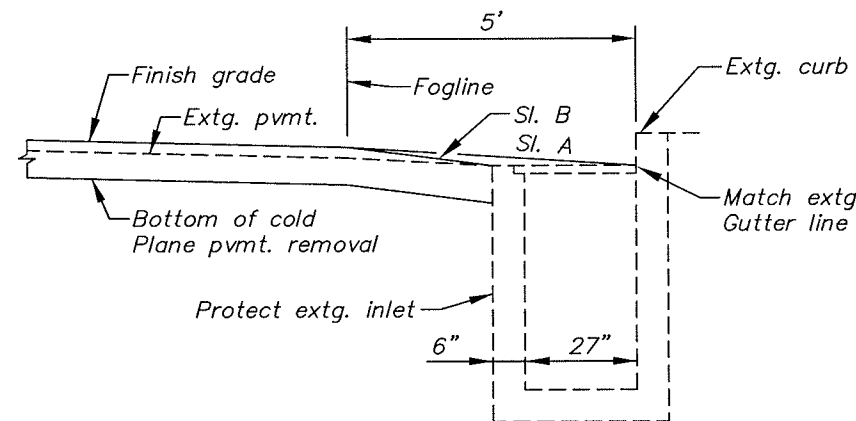
FLOWLINE MATCHING DETAIL



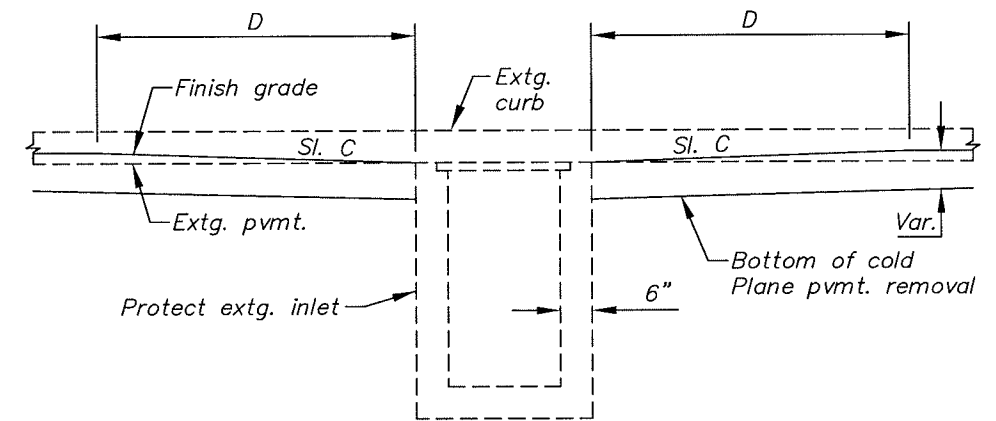
BUS PAD MATCHING DETAIL



PLAN



SECTION A-A



SECTION B-B

INLET PAVING DIMENSIONS				
LOCATION	D	A	B	C
44+50 to 67+20	10'	5.83%	9.91%	1.67%

Assumptions: Extg. cross slope = 2.50%
: Curb is level
: Bike lane = 5.0'

INLET PAVING DETAIL

OREGON DEPARTMENT OF TRANSPORTATION

DAVID EVANS AND ASSOCIATES, INC.
2100 Southwest River Parkway
Portland Oregon 97201 Ph: 503.223.6663

HALL BLVD- HART RD-RIDGECREST DR OVERLAY (BEAVERTON)

WASHINGTON COUNTY

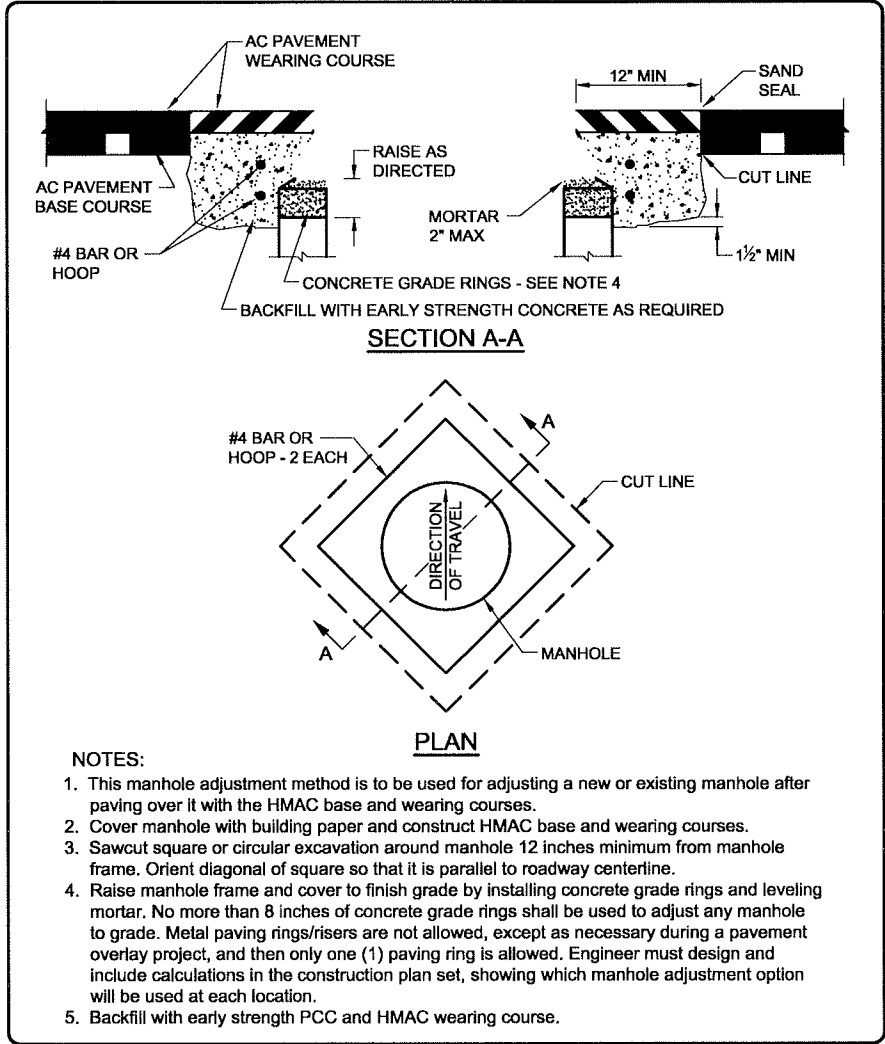
Reviewed By -
Designed By - Scott Emmens
Drafted By - Justin DeMello


DETAILS

SHEET NO.
2B

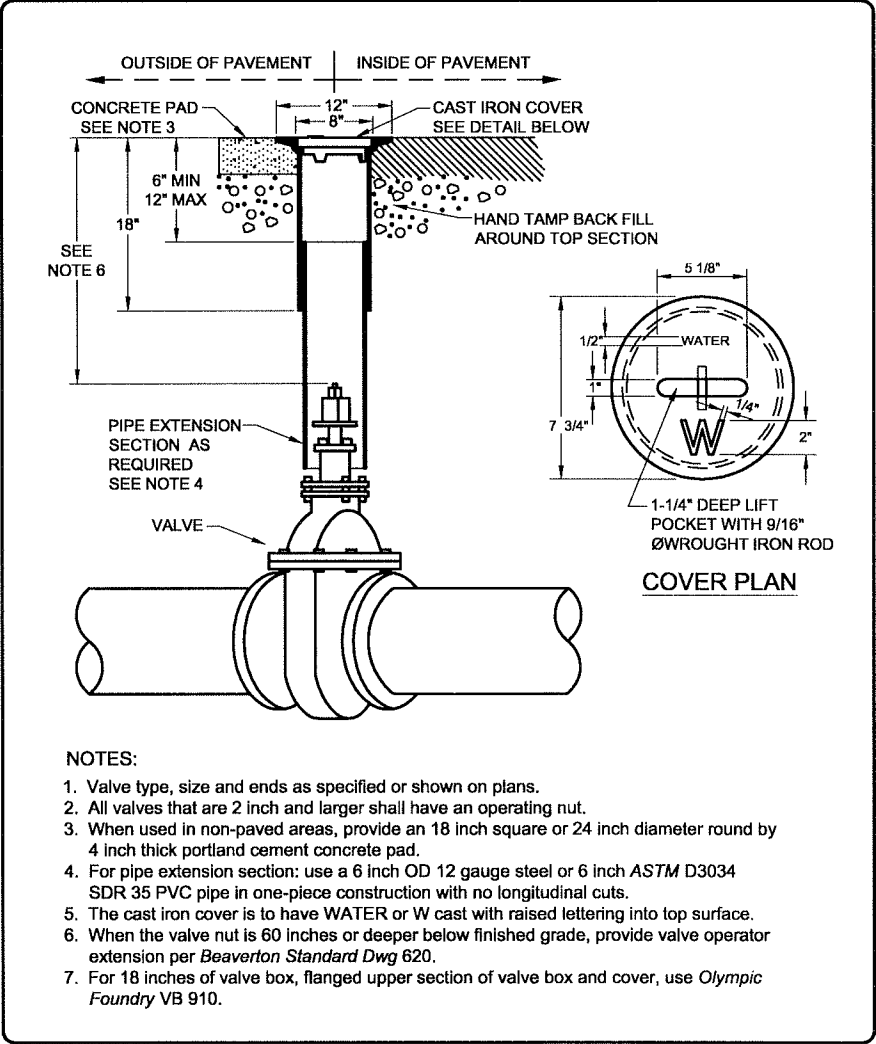



EXPIRES 12-31-09



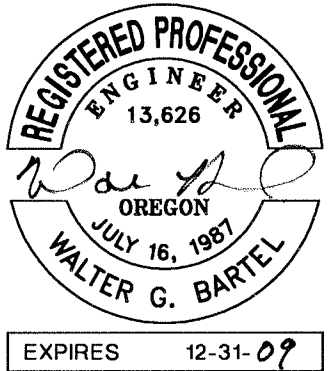
 City Of Beaverton	PUBLIC WORKS DEPARTMENT		MANHOLE ADJUSTMENT SEQUENCE OPTION #1	
	CITY ENGINEER Terry Waldelo, P.E.	DATE 3 - 22 - 05	DRAWN BY JCH - CPD	DRAWING NO. 320



MAJOR ADJUST MANHOLE
C.O.B. STD. DRG. NO. 320

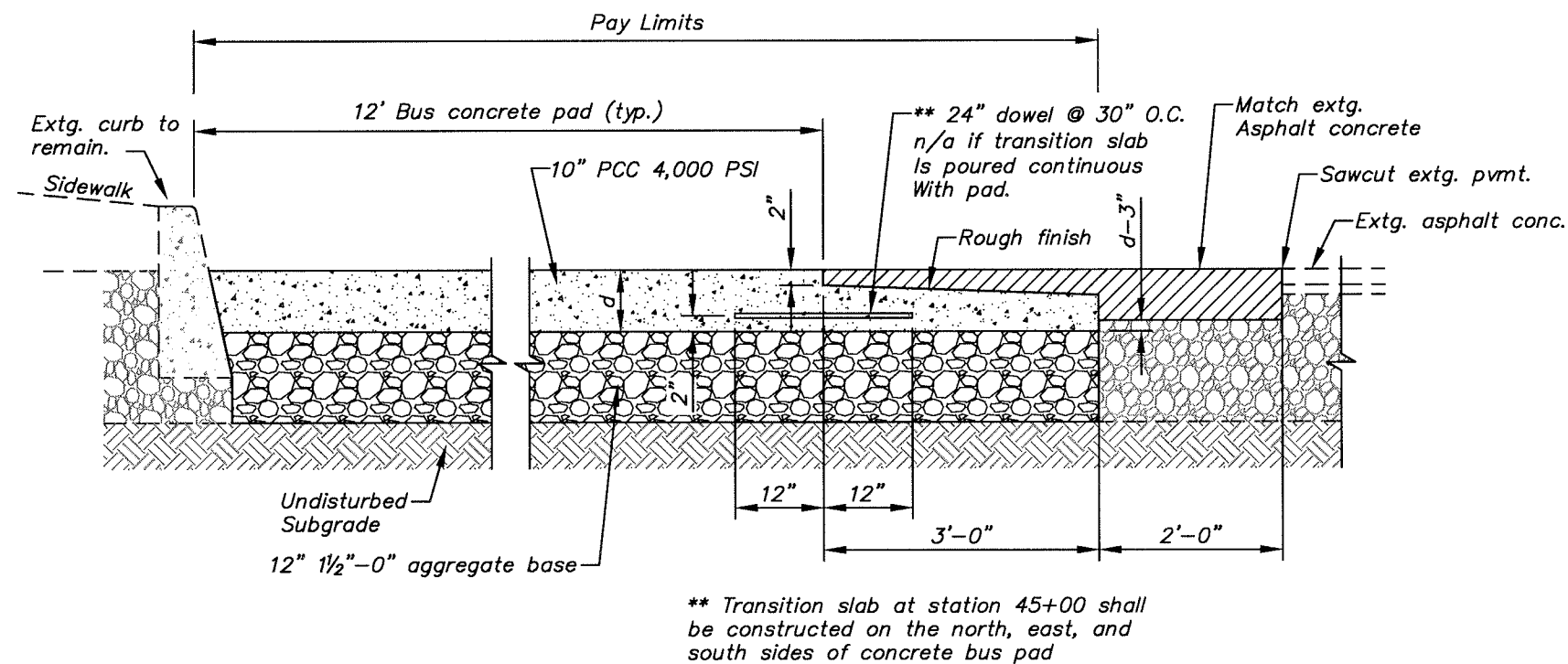


 City Of Beaverton	PUBLIC WORKS DEPARTMENT		WATER VALVE BOX AND COVER	
	UTILITIES ENGINEER David A. Winship, P.E.	DATE 2 - 13 - 07	DRAWN BY JR - ED	DRAWING NO. 615

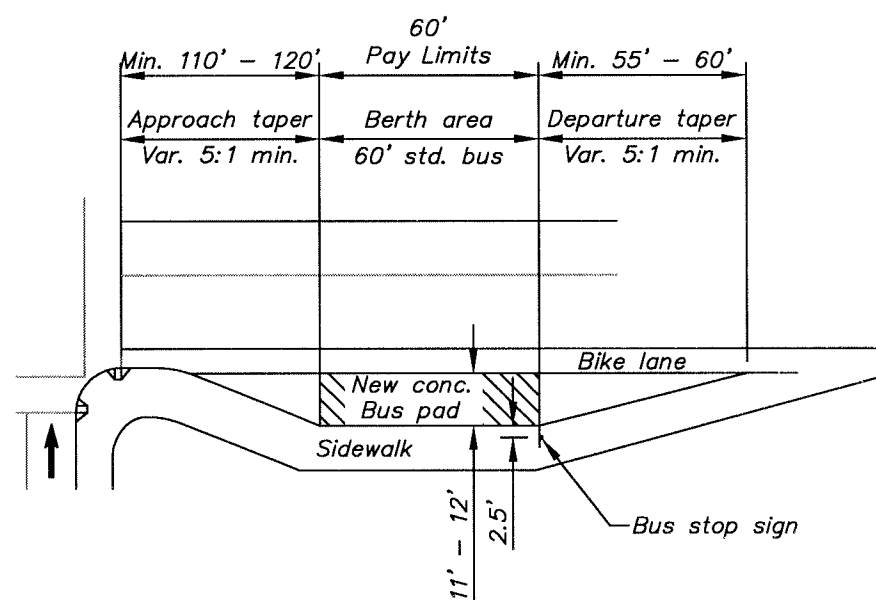
WATER VALVE BOX AND COVER
C.O.B. STD. DRG. NO. 615



 OREGON DEPARTMENT OF TRANSPORTATION	
 DAVID EVANS AND ASSOCIATES, INC. 2100 Southwest River Parkway Portland Oregon 97201 Ph: 503.223.6663	
HALL BLVD. HART RD-RIDGECREST DR OVERLAY (BEAVERTON)	
WASHINGTON COUNTY	
Reviewed By - RGA Designed By - Scott Emmens Drafted By - Justin DeMello	
DETAILS	SHEET NO. 2B-2



CONCRETE BUS PAD (TYPICAL)

MID-BLOCK BUS PULLOUT
AND BUS PAD (TYPICAL)

EXPIRES 12-31-09

OREGON DEPARTMENT OF TRANSPORTATION

 DAVID EVANS AND ASSOCIATES, INC.
2100 Southwest River Parkway
Portland Oregon 97201 Ph: 503.223.6663
HALL BLVD. HART RD-RIDGECREST DR OVERLAY
(BEAVERTON)

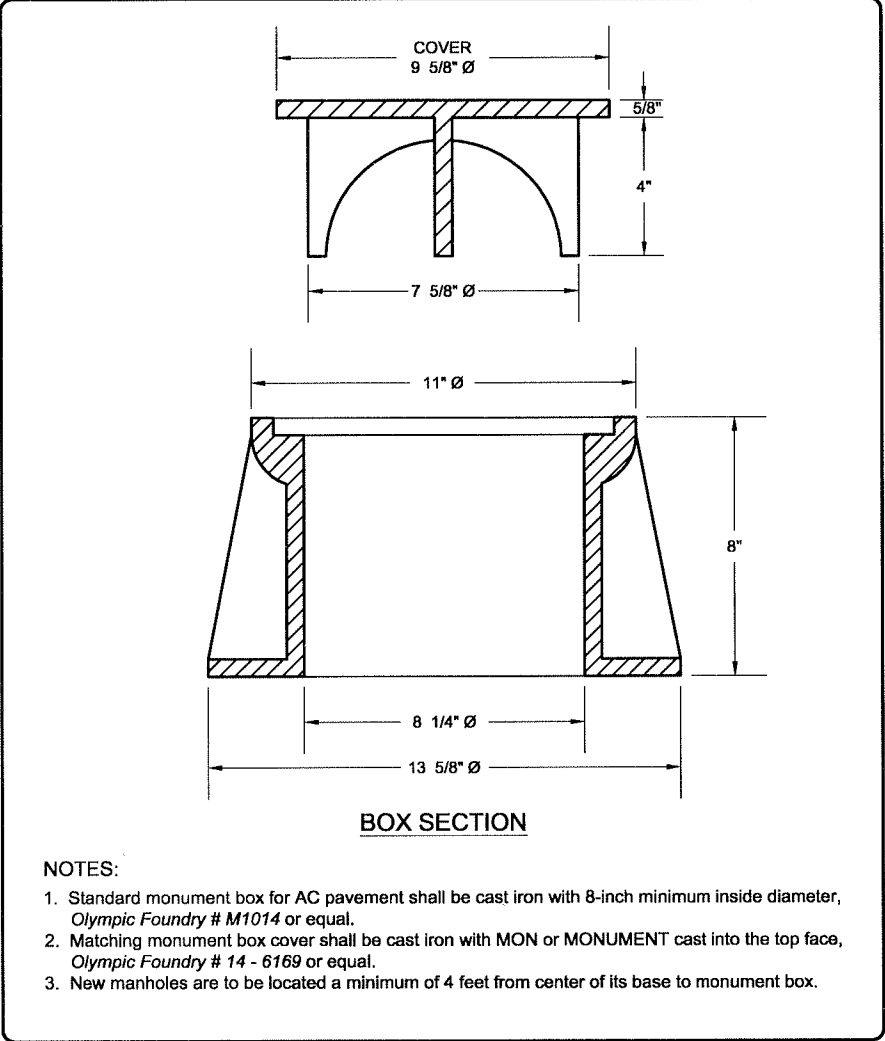
WASHINGTON COUNTY


Reviewed By -
Designed By - Scott Emmens
Drafted By - Justin DeMello

DETAILS

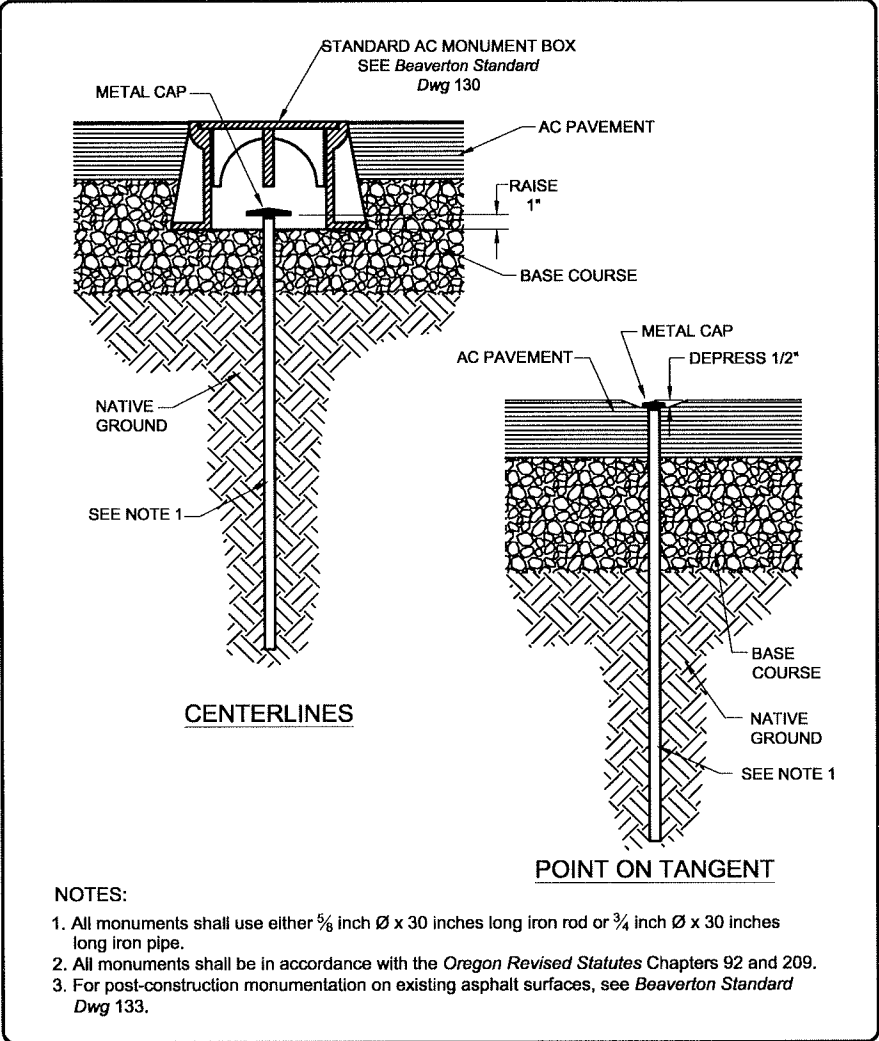
SHEET
NO.


2B-3



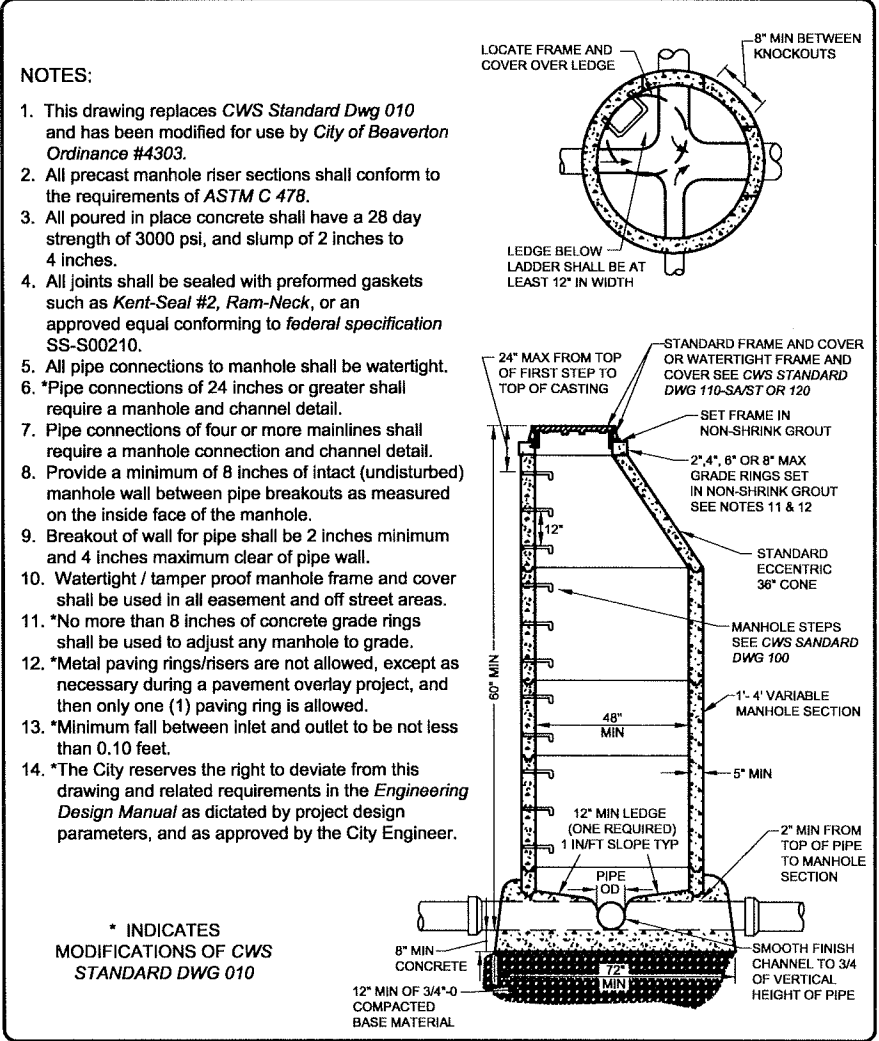
 City Of Beaverton	PUBLIC WORKS DEPARTMENT		STANDARD AC MONUMENT BOX	
	CITY ENGINEER <u>Terry Waldele, P.E.</u>	DATE 5 - 09 - 06	DRAWN BY JR - CPD	DRAWING NO. 130


STANDARD AC MONUMENT BOX
C.O.B. STD. DRG. NO. 130



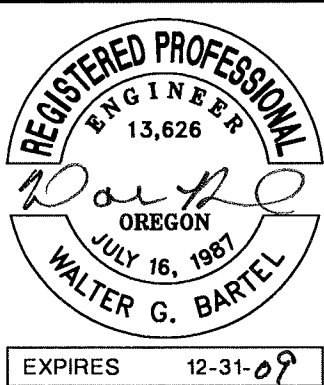
 City Of Beaverton	PUBLIC WORKS DEPARTMENT		ASPHALT CENTERLINE MONUMENTS	
	CITY ENGINEER <u>Terry Waldele, P.E.</u>	DATE 4 - 27 - 06	DRAWN BY JR - CPD	DRAWING NO. 135




ASPHALT CENTERLINE MONUMENTS
C.O.B. STD. DRG. NO. 135

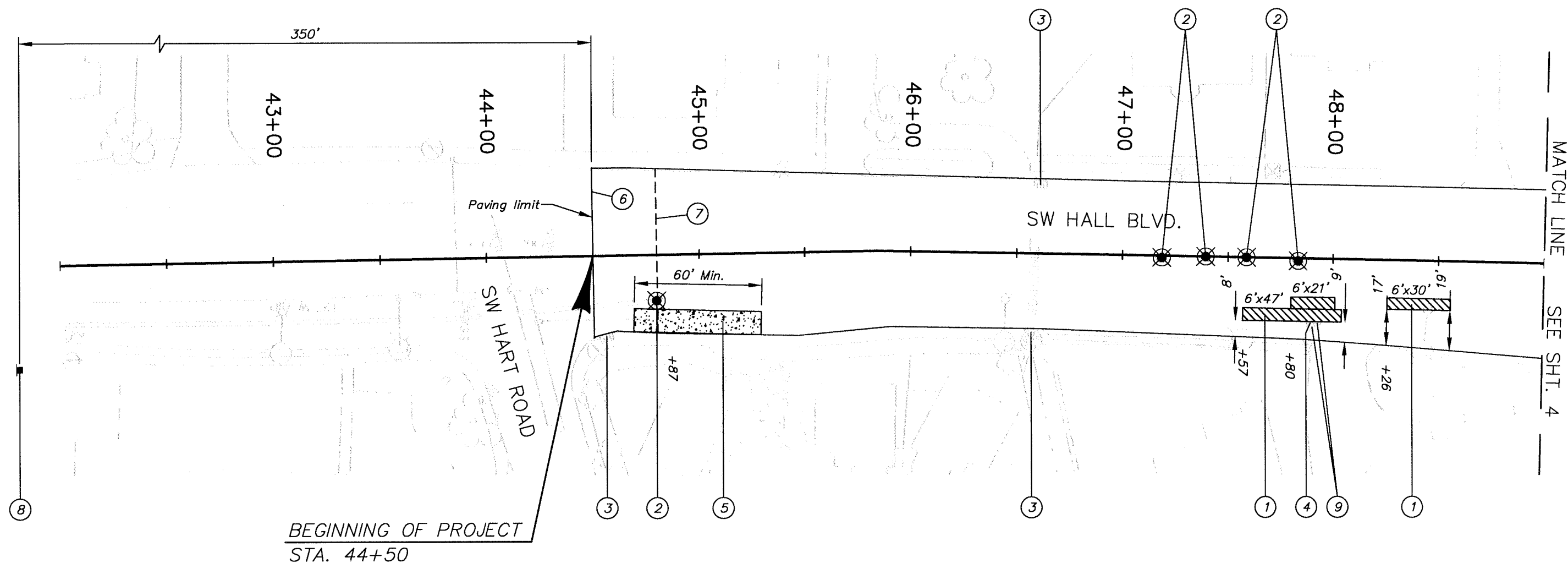


 City Of Beaverton	PUBLIC WORKS DEPARTMENT		CWS (USA) STANDARD MANHOLE WITH C.O.B. MODIFICATIONS	
	CITY ENGINEER <u>Terry Waldele, P.E.</u>	DATE 5 - 09 - 06	DRAWN BY JR - CPD	DRAWING NO. 330

CWS (USA) STANDARD MANHOLE
WITH C.O.B. MODIFICATIONS
C.O.B. STD. DRG. NO. 330

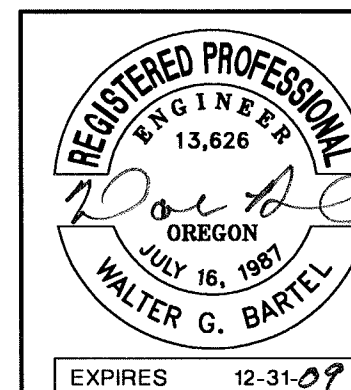


 OREGON DEPARTMENT OF TRANSPORTATION	
 DAVID EVANS AND ASSOCIATES, INC. 2100 Southwest River Parkway Portland Oregon 97201 Ph: 503.223.6663	
HALL BLVD. HART RD-RIDGECREST DR OVERLAY (BEAVERTON)	
WASHINGTON COUNTY	
Reviewed By -  Designed By - Scott Emmens Drafted By - Justin DeMello	
DETAILS	SHEET NO. 2B-4



- | | |
|---|---|
| ① 7.5" grind and 9" level 3 1/2" HMAC overlay | ⑥ Sta. 44+50
Sawcut line match extg.
(See sht. 2B for pavmt. matching detail) |
| ② Adjust MH - 5
(For details, see sht. 2B-2)
(By others) | ⑦ Sta. 44+80
Angle point of vertical grind
(See sht. 2B for pvmt. matching detail) |
| ③ Protect extg. inlet - 3
(For inlet paving detail, see sht. 2B) | ⑧ Install Temporary "Putting Oregon
Back to Work" Sign For Duration
Of Construction. See Sign #CG20-8su
In The ODOT Sign Policy And
Guidelines Manual For Details |
| ④ Protect extg. water valve box and
Cover and adjust to finished grade - 1
(For details, see Sht. 2B-2) | ⑨ Remove and replace extg.
Water valve box and lid and
Adjust to finished grade - 2
(For details, see sht. 2B-2) |
| ⑤ Replace TriMet bus pad.
Const. for a total length of 60'.
(See sht. 2B-3 for details) | |

Scale 1"=50'



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2100 Southwest River Parkway
Portland Oregon 97201 Ph: 503.223.6663

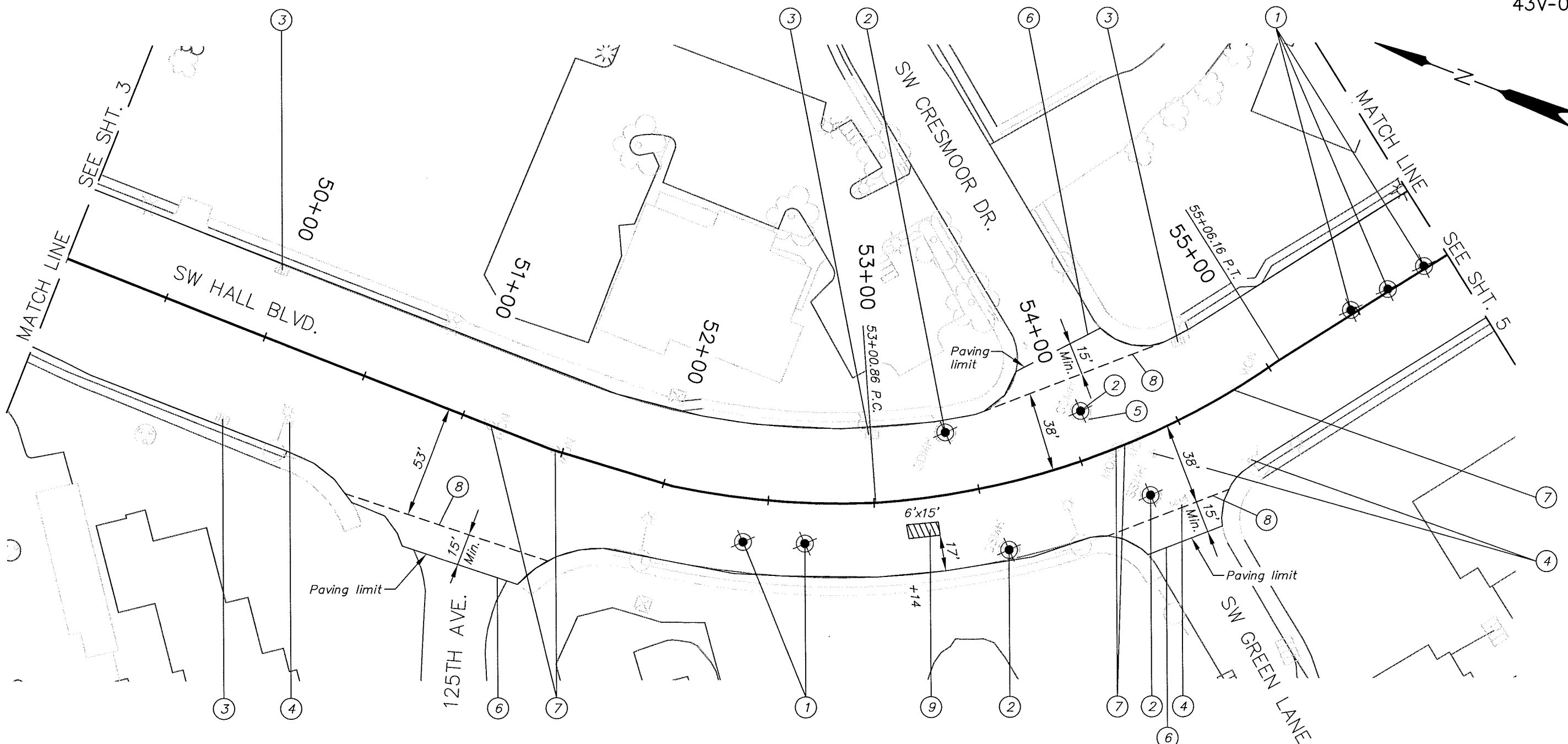
HALL BLVD. HART RD-RIDGECREST DR OVERLAY
(BEAVERTON)

WASHINGTON COUNTY

Reviewed By - RGA
Designed By - Scott Emmens
Drafted By - Justin DeMello

GENERAL CONSTRUCTION

SHEET
NO.
3



Scale 1"=50'

- | | |
|---|---|
| ① Adjust MH - 5
(By others) | ⑥ Sawcut line match extg.
(See sht. 2B for pvmt. matching detail) |
| ② Major adjust MH - 4
(For details, see sht. 2B-2) | ⑦ Protect extg. centerline monument
And adjust to finished grade - 5
(For details, see sht. 2B-4) |
| ③ Protect extg. inlet - 4
(For inlet paving detail, see sht. 2B) | ⑧ Grade break of vertical grind
(See sht. 2B for pvmt. matching detail) |
| ④ Protect extg. water valve box and
Cover and adjust to finished grade - 6
(For details, see sht. 2B-2) | ⑨ 7.5" grind and 7.5" level 3 1/2" HMA overlay |
| ⑤ Protect extg. gas valve box and cover
And adjust to finished grade - 1
(By Others) | |



EXPIRES 12-31-09



OREGON DEPARTMENT OF TRANSPORTATION



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2100 Southwest River Parkway
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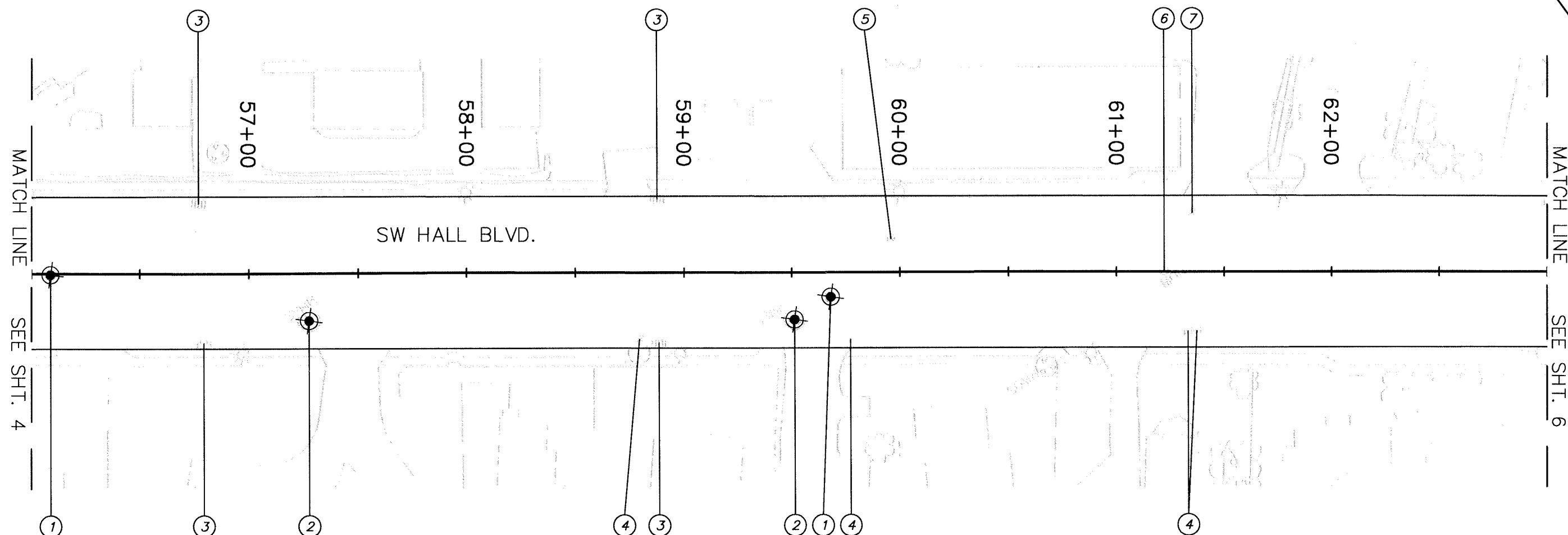
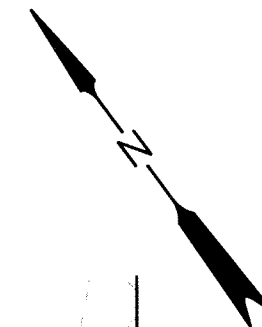
HALL BLVD. HART RD-RIDGECREST DR OVERLAY
(BEAVERTON)

WASHINGTON COUNTY

Reviewed By -
Designed By - Scott Emmens
Drafted By - Justin DeMello

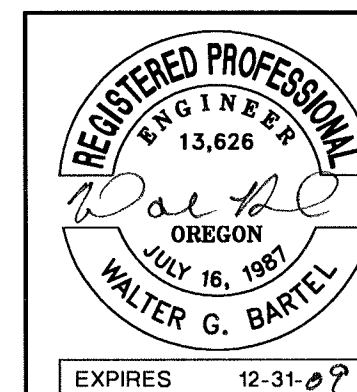
GENERAL CONSTRUCTION

SHEET
NO.
4



- ① Adjust MH - 2
(By others)
- ② Major adjust MH - 2
(For details, see sht. 2B-2)
- ③ Protect extg. inlet - 4
(For inlet paving detail, see sht. 2B)
- ④ Protect extg. water valve box and cover
And adjust to finished grade - 4
(For details, see Sht. 2B-2)
- ⑤ Protect extg. gas valve box and cover
And adjust to finished grade - 1
(By others)
- ⑥ Protect extg. centerline monument
And adjust to finished grade - 1
(For details, see sht. 2B-4)
- ⑦ Remove and replace extg.
Water valve box and lid and
Adjust to finished grade - 1
(For details, see sht. 2B-2)

Scale 1"=50'



OREGON DEPARTMENT OF TRANSPORTATION

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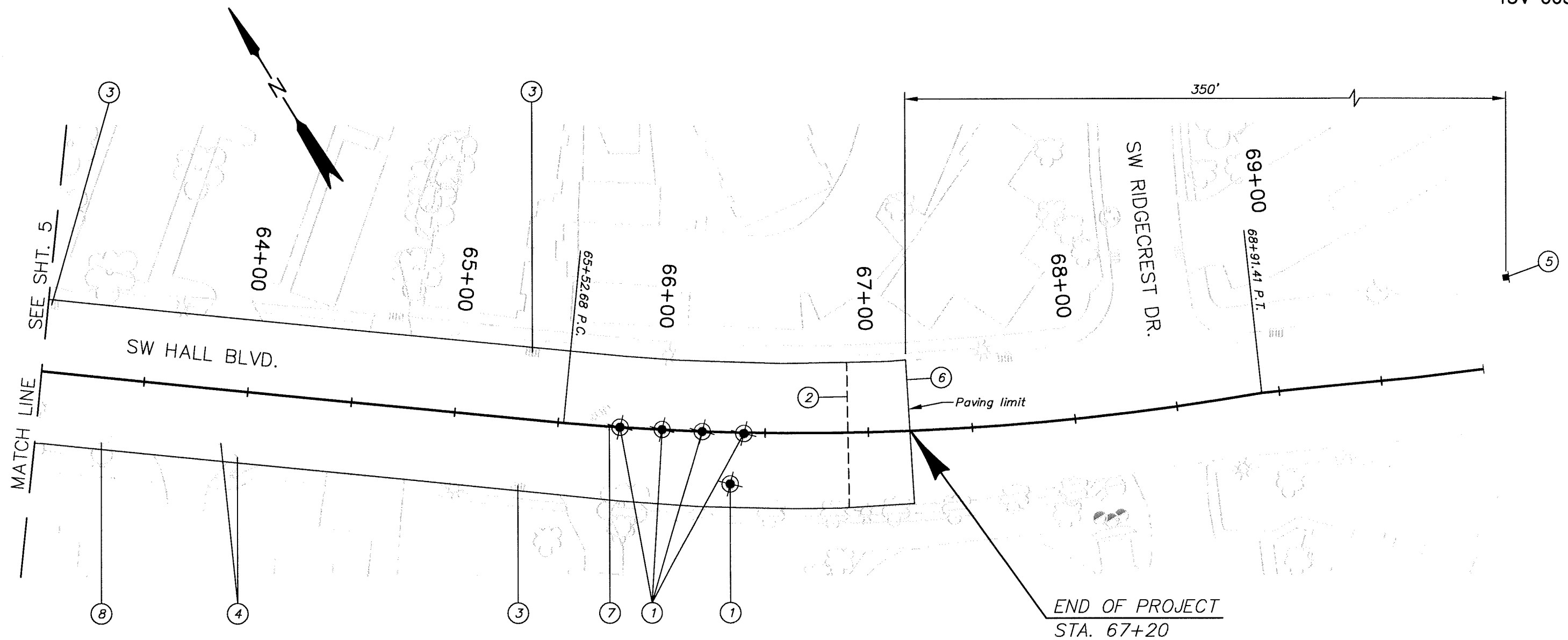
**HALL BLVD. HART RD-RIDGECREST DR OVERLAY
(BEAVERTON)**

WASHINGTON COUNTY

Reviewed By - *RGA*
Designed By - Scott Emmens
Drafted By - Justin DeMello

GENERAL CONSTRUCTION

SHEET
NO.
5



- ① Adjust MH - 5
(By others)
- ② Sta. 66+90 to 67+20
Vertical overlay transition
(See sht. 2B for detail)
- ③ Protect extg. inlet - 3
(For inlet paving detail, see sht. 2B)
- ④ Protect extg. water valve box and cover
And adjust to finished grade - 2
(For details, see sht. 2B-2)
- ⑤ Install temporary "Putting Oregon
Back to Work" sign for duration
Of construction. See sign #CG20-8su
In The ODOT Sign Policy And
Guidelines Manual for details
- ⑥ Sawcut line match extg.
- ⑦ Protect extg. centerline monument
And adjust to finished grade - 1
(For details, see sht. 2B-4)
- ⑧ Remove and replace extg.
Water valve box and lid and
Adjust to finished grade
(For details, see sht. 2B-2)

EXISTING

- EX

AL

Retain and protect existing aluminum sign and mount
- EX

C

Retain and protect existing model 170 controller and model 332 cabinet
- EX

CC

Retain and protect existing control cables
- EX

CH

FD

Retain and protect existing (CH=channel) fire pre-emption detector unit
- EX

CH

FF

Retain and protect existing (CH=channel) fire pre-emption feeder cable
- EX

HPS

Retain and protect existing high pressure sodium luminaire
- EX

J1

Retain and protect existing 17"x10"x12" precast concrete junction box
- EX

J2

Retain and protect existing 22"x12"x12" precast concrete junction box
- EX

J3

Retain and protect existing 30"x17"x12" precast concrete junction box
- EX

LA

Retain and protect existing luminaire arm
- EX

MA

Retain and protect existing traffic signal mast arm
- EX

MP

Retain and protect existing traffic signal mast arm pole
- EX

MPL

Retain and protect existing traffic signal mast arm pole with luminaire pole extension
- EX

P/B

Retain and protect existing pedestrian signal, pushbutton and instruction sign
- EX

PP

Retain and protect existing pedestrian signal pedestal
- EX

SNS

Retain and protect existing street name sign
- EX

TC

Retain and protect existing terminal cabinet
- EX

VPh

Retain and protect existing phase (Ph) vehicle signal
- EX

W

Retain and protect existing wiring
- EX

DC

Retain and protect existing detector conduit
- EX

S

EC

Retain and protect existing electrical conduit (S=size) inch
- EX

IC

Retain and protect existing interconnect conduit
- EX

LC

Retain and protect existing luminaire conduit

INSTALL

- VDC

Ph

Install video detection camera for (Ph=Phase)
- VDF

Ph

Install video detection cable for (Ph=Phase)
- VDZ

Ph

Video detection zone for (Ph=Phase)

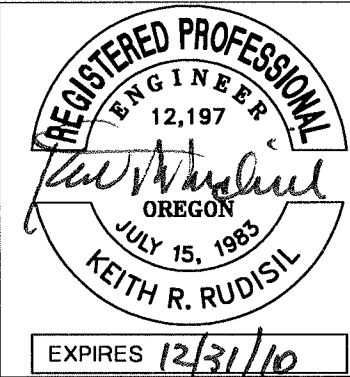
REMOVE

- RX

LF

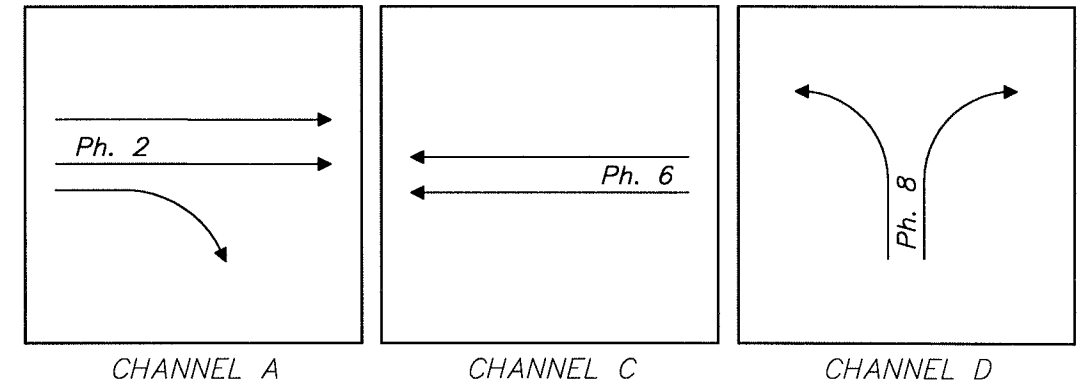
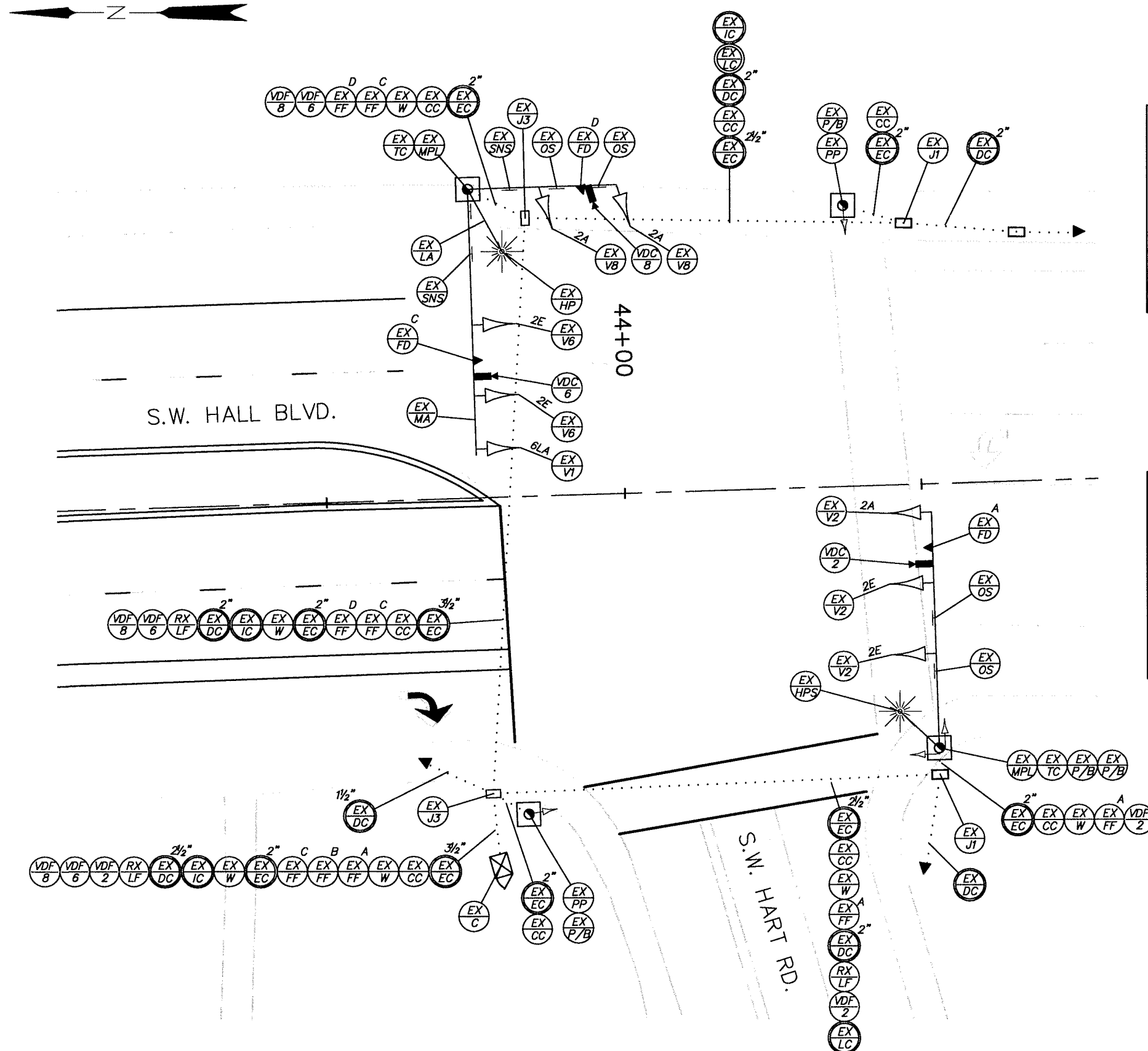
Remove existing loop feeder cable

2 = 12"R, 12"Y, 12"G
3L = 12" RLTA, 12" YLTA, 12" GLTA
6L = 12" RLTA, 12" YLTA, 12" FYLTA, 12" GLTA
E = Elevator Plumbizer
A = Standard Plumbizer

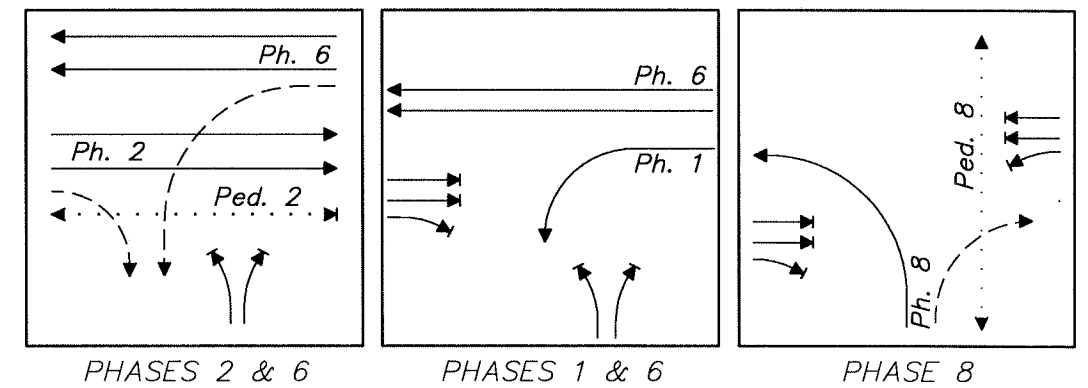


OREGON DEPARTMENT OF TRANSPORTATION TRAFFIC ROADWAY SECTION	
DAVID EVANS AND ASSOCIATES INC. 2100 S.W. River Parkway, Portland Oregon 97201 Ph: 503.223.6663	
HALL BLVD: HART RD-RIDGECREST DR OVERLAY (BEAVERTON)	
WASHINGTON COUNTY	
DESIGNED BY: Keith Rudisil REVIEWED BY: MPLA DRAWN BY: Justin DeMello FC: MP:	ACCOMPANIED BY DWGS: SG-2, SG-3
SIGNAL LEGEND	
Str. ID. No. _____ T.R.S. DWG. NO. SG	

SIGNAL PLAN S.W. HALL BLVD. AT S.W. HART RD.



FIRE PRE-EMPTION OPERATION



NORMAL PHASE ROTATION

Note: See Sht. SG For Legend

OREGON DEPARTMENT OF TRANSPORTATION
TRAFFIC ROADWAY SECTION

DAVID EVANS AND ASSOCIATES INC.
2100 S.W. River Parkway, Portland Oregon 97201 Ph: 503.223.6663

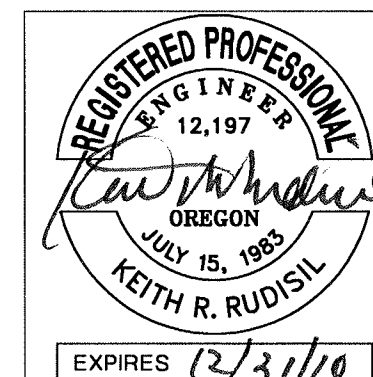
HALL BLVD: HART RD-RIDGECREST DR OVERLAY
(BEAVERTON)

WASHINGTON COUNTY

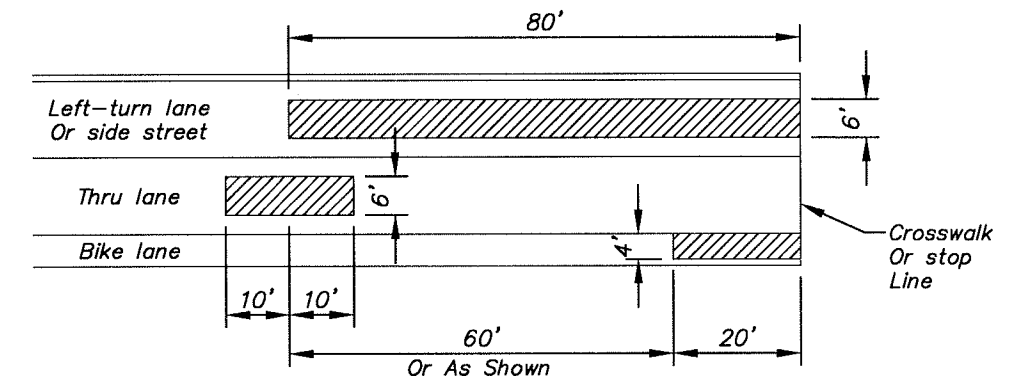
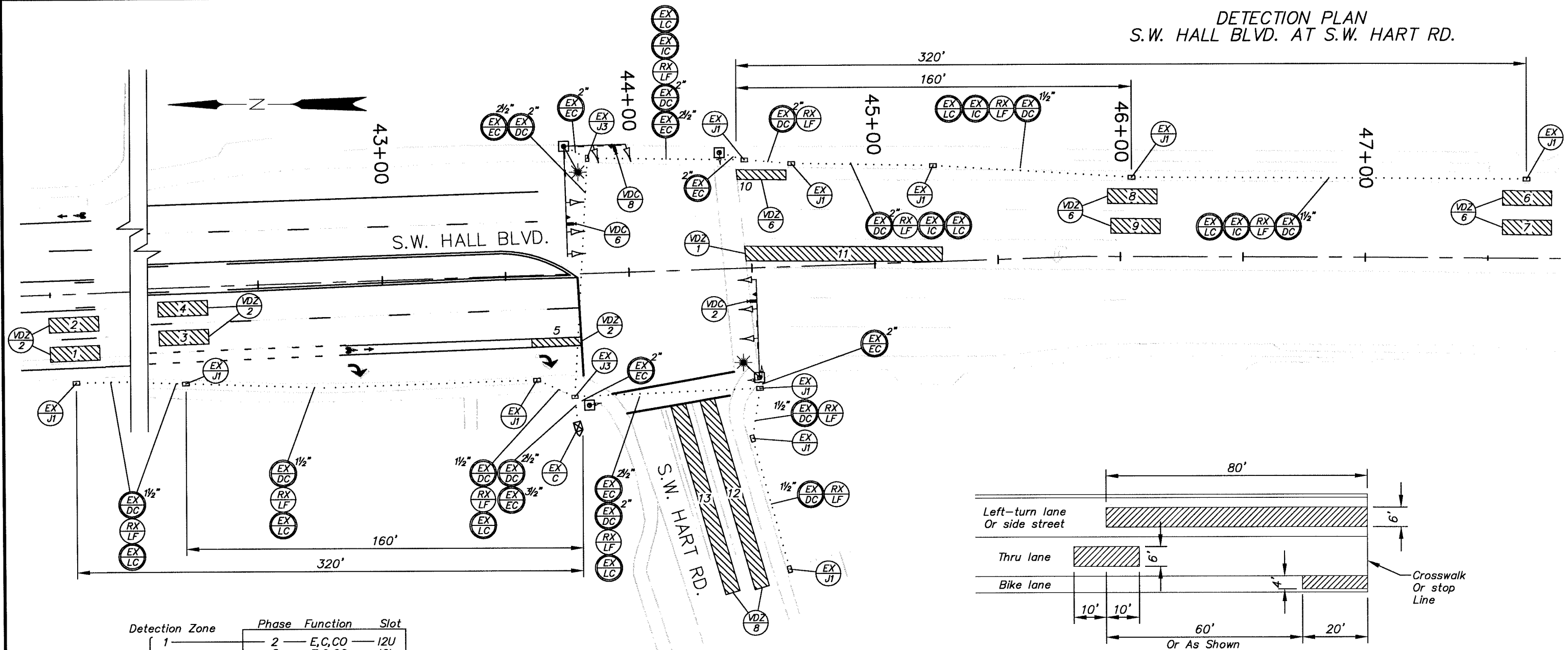
DESIGNED BY: Keith Rudisil
REVIEWED BY: Justin DeMello
DRAWN BY: Justin DeMello
FC: MP:

SIGNAL PLAN
HART ROAD

Str. ID. No. T.R.S. DWG. NO. SG-2



DETECTION PLAN S.W. HALL BLVD. AT S.W. HART RD.



TYPICAL DETECTION ZONE DETAIL

Detection Zone	Phase	Function	Slot
Camera 1	1	E, C, CO	I2U
	2	E, C, CO	I2L
	3	E, C, CO	I3U
	4	E, C, CO	I3L
Camera 2	*5	E, C, CO	J2U
	6	E, C, CO	J2L
	7	E, C, CO	J3U
	8	E, C, CO	J3L
Camera 3	*10	E, C, CO	I1U
	11	E, C, CO	J6U
	12	E, C, CO	J6L
	13	E, C, CO	J6U
	14	E, C, CO	J6L

VIDEO DETECTION ZONE WIRING DIAGRAM

Notes:

* Bike Detection Zone

See Sht. SG For Legend

Remove all loop feeders from conduits even if not shown and install a No. 16 AWG THWN stranded copper wire with orange base and blue tracer as a locate wire in empty conduits.

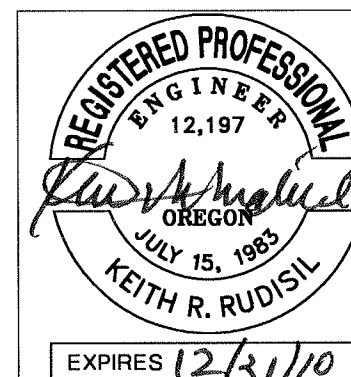
GENERAL NOTES:

All materials and workmanship shall conform to City of Beaverton ordinances, specifications and supplements to the 2008 Oregon Standard Specifications For Construction.

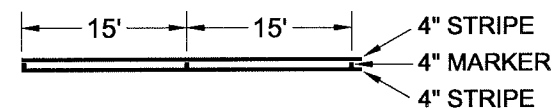
Contractor shall supply the following material as a minimum with the video detection system. Supply additional equipment as recommended by the manufacturer.

VP3D.1	1 ea.
VP3D.2	2 ea.
VIEWCOM/E	1 ea.
2 Channel I/O	1 ea.
Cameras	3 ea.

Mount cameras on mast arms using PELCO adjustable brackets (Tilt and pan extended sensor using brackets, band mount) with riser. All material shall be as recommended by the supplier and approved by the City of Beaverton.

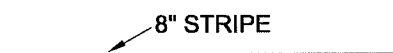


OREGON DEPARTMENT OF TRANSPORTATION TRAFFIC ROADWAY SECTION	
DAVID EVANS AND ASSOCIATES INC. 2100 S.W. River Parkway, Portland Oregon 97201 Ph: 503.223.6663	
HALL BLVD: HART RD-RIDGECREST DR OVERLAY (BEAVERTON)	
WASHINGTON COUNTY	
DESIGNED BY: Keith Rudisil REVIEWED BY: <i>MDL</i> DRAWN BY: Justin DeMello FC: MP:	DETECTION PLAN HART ROAD
Str. ID. No. _____ T.R.S. DWG. NO. SG-3	



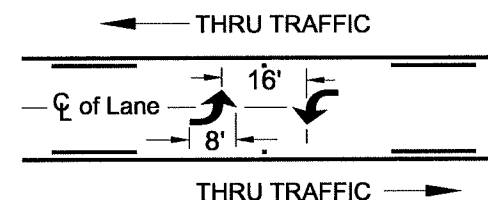
1 MEDIAN NOSE

Two 4" yellow Methyl Methacrylate lines with 4" bi-directional yellow type I raised Pavement Markers at 15' on center



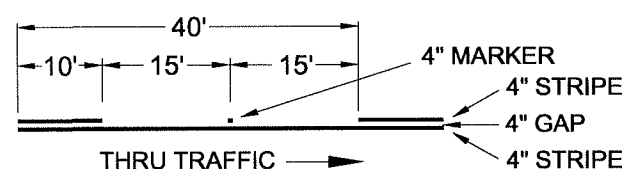
5 BIKE LANE LINE

8" white Methyl Methacrylate line



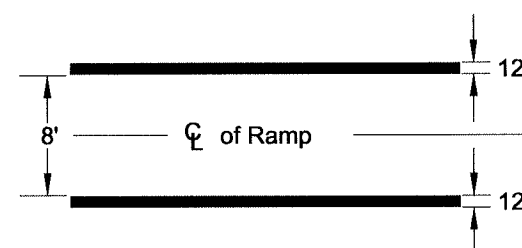
9 2-WAY LEFT TURN MARKINGS

Two opposing white Methyl Methacrylate Arrows centered in the turn lane.



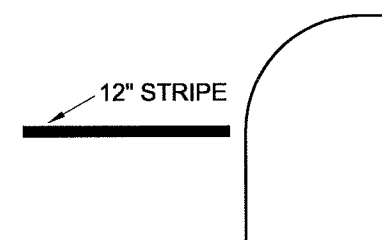
2 TWO-WAY LEFT TURN CENTERLANE LINES

4" yellow Methyl Methacrylate lines with 4" bi-directional yellow type I Raised Pavement Markers



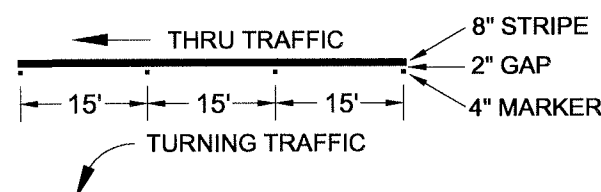
6 CROSSWALK

Two 12" white Methyl Methacrylate lines



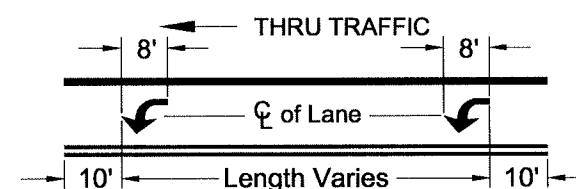
11 STOP LINE

12" white Methyl Methacrylate line



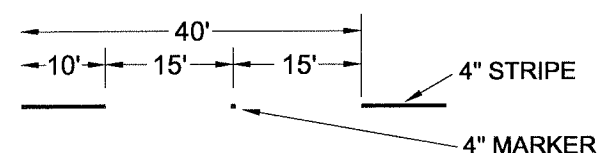
3 LEFT TURN LANE LINE

8" white Methyl Methacrylate line with 4" mono-directional white type I raised Pavement Markers at 15' on center



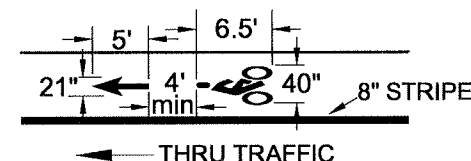
7 LEFT TURN LANE MARKING

White Methyl Methacrylate Arrows centered 10' from beginning of full width of turn lane.



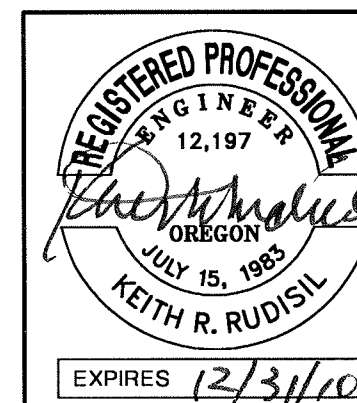
4 SKIP LANE LINE

4" white Methyl Methacrylate lines with 4" mono-directional white type I raised Pavement Markers



8 BIKE LANE MARKINGS

White Methyl Methacrylate Arrow & Bike Symbol centered in Bike lane.



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Portland Oregon 97201 Ph: 503.223.6663

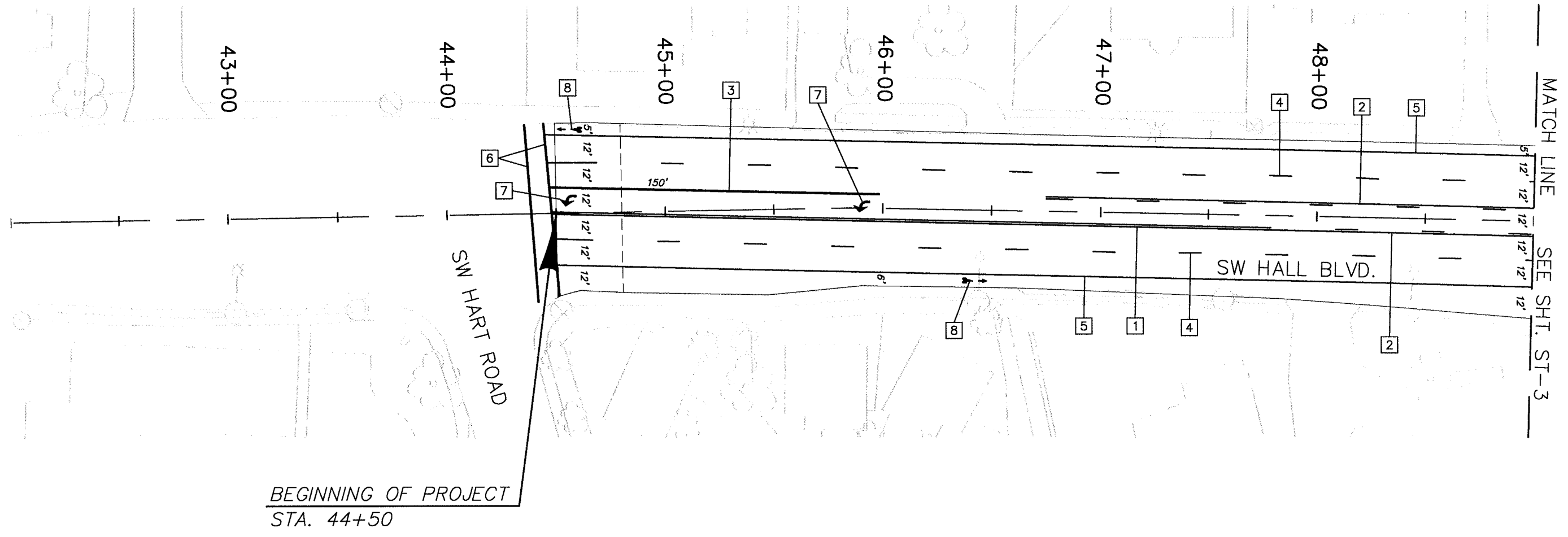
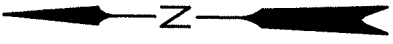
HALL BLVD, HART RD-RIDGECREST DR OVERLAY (BEAVERTON)

WASHINGTON COUNTY

Reviewed By - *[Signature]*
Designed By - Mike Laux
Drafted By - Justin DeMello

STRIPING DETAILS

SHEET NO.
ST

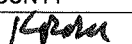


Scale 1"=50'

 OREGON DEPARTMENT OF TRANSPORTATION

 **DAVID EVANS AND ASSOCIATES, INC.**
2100 Southwest River Parkway
Portland Oregon 97201 Ph: 503.223.6663

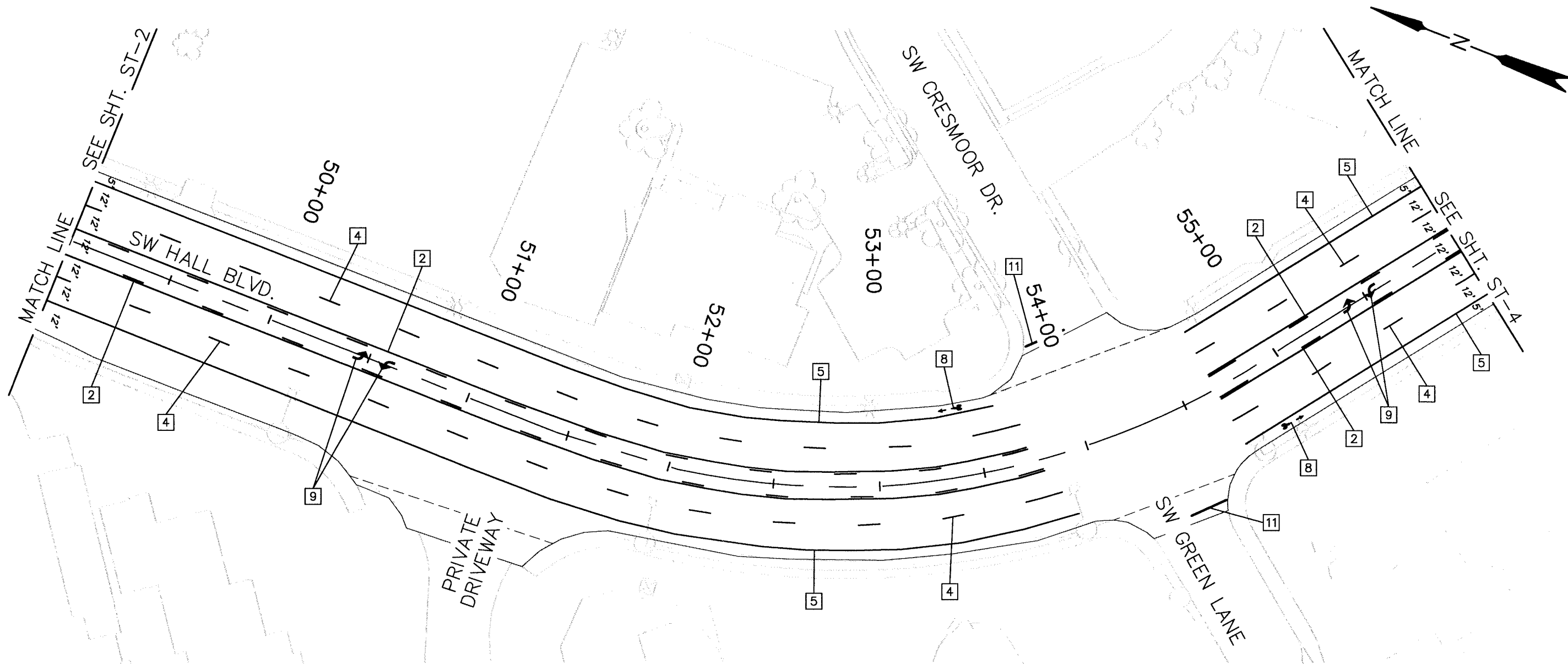
**HALL BLVD. HART RD-RIDGECREST DR OVERLAY
(BEAVERTON)**

WASHINGTON COUNTY
Reviewed By - 
Designed By - Mike Laux
Drafted By - Justin DeMello




STRIPING PLAN SHEET NO. **ST-2**

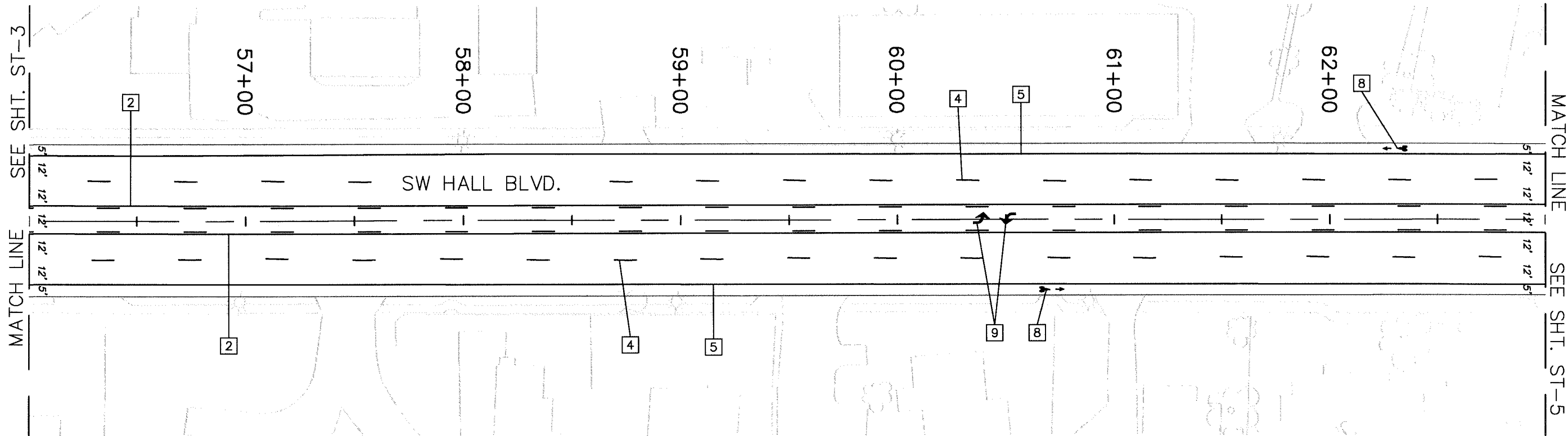
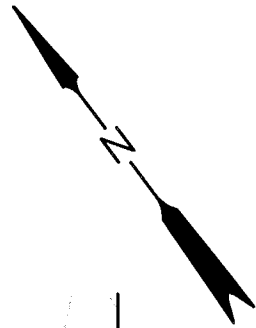


EXPIRES 12/31/10

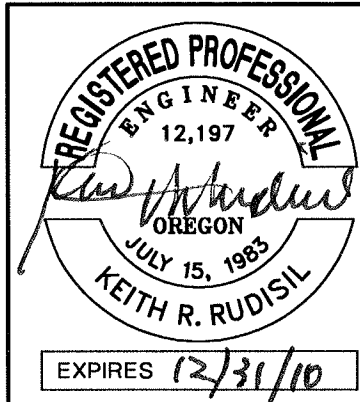




Scale 1"=50'

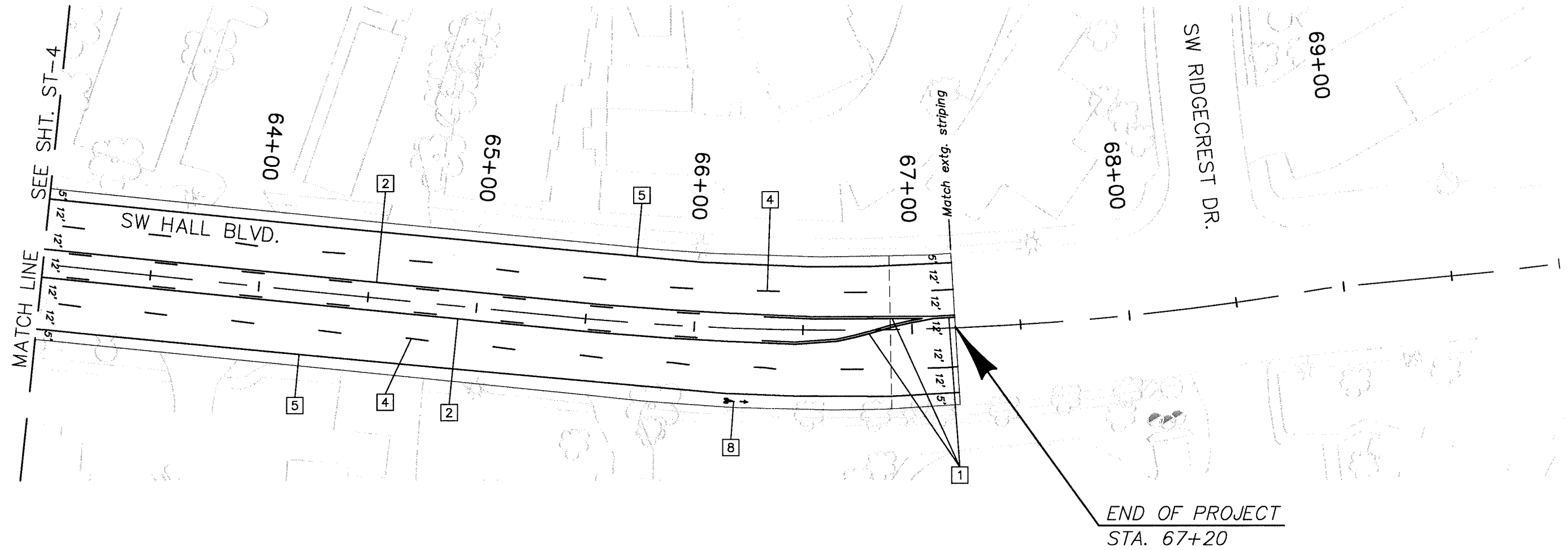
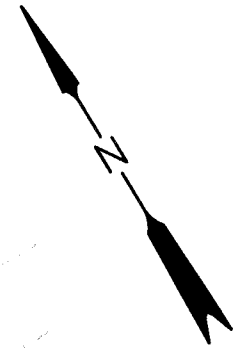
 <p>EXPIRES 12/31/10</p>	 OREGON DEPARTMENT OF TRANSPORTATION	
	 DAVID EVANS AND ASSOCIATES, INC. 2100 Southwest River Parkway Portland Oregon 97201 Ph: 503.223.6663	
	HALL BLVD. HART RD-RIDGECREST DR OVERLAY (BEAVERTON)	
	WASHINGTON COUNTY Reviewed By - <i>Keith Rudisil</i> Designed By - Mike Loux Drafted By - Justin DeMello	
	STRIPING PLAN	SHEET NO. ST-3



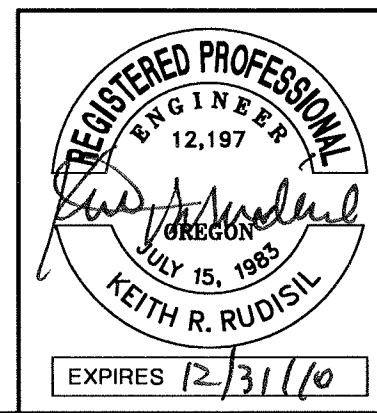
Scale 1"=50'



 OREGON DEPARTMENT OF TRANSPORTATION	
 DAVID EVANS AND ASSOCIATES, INC. 2100 Southwest River Parkway Portland Oregon 97201 Ph: 503.223.6663	
HALL BLVD. HART RD-RIDGECREST DR OVERLAY (BEAVERTON)	
WASHINGTON COUNTY	
Reviewed By - <i>KRM</i> Designed By - Mike Laux Drafted By - Justin DeMello	
STRIPING PLAN	SHEET NO. ST-4



Scale 1"=50'



OREGON DEPARTMENT OF TRANSPORTATION	
DAVID EVANS AND ASSOCIATES, INC. 2100 Southwest River Parkway Portland Oregon 97201 Ph: 503.223.6663	
HALL BLVD. HART RD-RIDGECREST DR OVERLAY (BEAVERTON)	
WASHINGTON COUNTY Reviewed By - <i>K. Rudisil</i> Designed By - Mike Laux Drafted By - Justin DeMello	
STRIPING PLAN	SHEET NO. ST-5